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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,955	01/21/2004	Nobuo Yamazaki	S011-5192	3878

7590

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EXAMINER

MAKI, STEVEN D

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/761,955		YAMAZAKI ET AL.	
	Examiner		Art Unit	
	Steven D. Maki		1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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- 1) The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

- 2) Claims 1-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claims 1 and 9, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is (1) the depressed portions being "generally" spherical shaped and (2) the lugs extending from an "approximate center" of the tread width. The original disclosure describes the depressed portions as being "substantially" spherical shaped and fails to reasonably convey the apparently broader subject matter of "generally" spherical shaped. The term "generally" has no explicit basis in the original disclosure. The original disclosure describes the lugs of the single illustrated tread pattern as extending from the center of the tire, which is the same as the center of the tread width. The original disclosure fails to reasonably convey the broader subject matter of extending from the "approximate" center. This broader subject matter reads on the lugs being spaced from the EP so as to define a circumferential groove at the EP - a configuration not contemplated by the original disclosure.

In claim 2, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the subject matter of the lugs being in overlapping relation. The lugs of the disclosed tire are circumferentially spaced apart and are not overlapping as can be seen from figure 5.

In claims 3 and 11, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the subject matter of the EP crossing the lugs in circumferential and axial directions. Although the disclosed tire inherently has an equatorial plane, such an equatorial plane extends in the circumferential direction instead of "in circumferential and axial directions".

In claims 4, 7 and 12, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the depressed portions being symmetrical about a line crossing the equatorial plane. This description redefines the invention in a manner not contemplated by the original disclosure; it being noted for example the depressed portions are not symmetrical about a sinusoidal line or a line extending from the radially lower left corner of the tire to the radially upper right corner of the tire at the tread surface.

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In claims 5 and 6, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the generally planar confronting surfaces (claim 5) and the generally planar surface portion (claim 6). The original disclosure shows the lugs as being separated by grooves, but fails to reasonably convey shaping those grooves such that the groove has generally planar confronting surfaces and a generally planar surface portion.

In claim 8, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the outer tread surface being "generally planar". As can be seen from figure 6, the outer tread surface of the tread is not "generally planar". As to figure 7, the outer tread surface is flat when the tire is viewed in cross section, but is not "generally planar".

In claim 9, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the spherical shaped depressed portions being formed merely by "corresponding side and end surfaces" (without a bottom surface).

3) The amendment filed 12-16-05 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment

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shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

- (1) the subject matter added to paragraph 33,
- (2) the subject matter added to paragraph 37,
- (3) the subject matter in the new abstract including the subject matter relating to "approximate center", "corresponding side and end surfaces" and "generally spherical shaped".

The subject matter added to paragraph 33 is new matter for the same reason given in the 112 first paragraph rejection of claims 3 and 11. The subject matter added to paragraph 37 is new matter for the same reasons given for claims 4, 7 and 12. Also, the original disclosure fails to reasonably convey picking and selecting line L to define the symmetrical shape of the depressed portions. The subject matter in the new abstract including the subject matter relating to "approximate center", "corresponding side and end surfaces" and "generally spherical shaped" is new matter for the same reasons given for claim 9.

Applicant is required to cancel the new matter in the reply to this Office Action.

4) In view of the above new matter rejections, the proposed drawing correction for figure 5 has not been approved by the examiner (the selection of line L for defining the symmetry of the depressed portions being new matter).

5) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6) Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1 and 9, the scope and meaning of "generally" spherical and extending from an "approximate" center of the tread width is ambiguous. In other words, the meets and bounds of the depressed portion shape and the location of each lug is unclear.

In claim 2, the scope and meaning of "overlapping relation" is unclear. In what manner and in which direction do the lugs overlap?

In claim 3, "an equatorial centerplane crossing each of the first and second lugs in circumferential and axial directions" is confusing and ambiguous since an EP of a tire extends only in the circumferential direction.

In claims 5 and 6, the scope and meaning of "generally planar confronting surfaces" and "generally planar surface portion" is unclear. For example, it is unclear if the claimed surfaces read on or exclude (1) a surface having shallow grooves or (2) a surface having a slight curvature.

In claim 8, the scope and meaning of the outer tread surface being "generally planar" is unclear. Which radii are included and which radii are excluded?

In claim 9, the description of "corresponding side and end surfaces of adjacent first and second lugs form generally spherical-shaped depressed portions" is unclear. For example, do each first lug have two end surfaces and/or two side surfaces? Also, "thread" in claim 9 should be --tread--.

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In claim 1 and claim 10, it is unclear if the "surface" (line 19 of claim 1, line 6 of claim 10) is a bottom surface. If not, why not and where is this surface located?

7) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8) **Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 502 (JP 8-156502) in view of admitted prior art (Figures 11A, 11B).**

Japan 502 discloses an agricultural wheel tire comprising alternating lugs 34 separated by notches 37 and depressions wherein each depression is defined by an end surface of one lug and side surfaces of two other lugs. As can be seen from figures 4 and 5, **the depression (which is defined by three lugs) has a concave shape in the circumferential direction**. Japan 502 does not recite providing the depression with a "generally" spherical shape.

As to claims 1, 9 and 10, it would have been obvious to one of ordinary skill in the art to provide Japan 502's lugs such that the depression defined by the lugs have the claimed shape ("generally spherical shape") in view of the suggestion from the admitted prior art to shape alternating lugs of an agricultural wheel tire such that a depression, defined by three of the lugs, is concavely curved as shown in Figure 11B and the corners of the lugs are concavely curved as shown in Figure 11A. Japan 502's tire and the admitted prior art tire have substantially similar tread patterns, which are to be used on soil. As can be seen from figures 4 and 5, the bottom surface of the

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depressed portion is concavely curved. This concavely curved shape in figures 4 and 5 of Japan 502 directly correspond to the concavely curved contour shown in figures 8A-8C of applicant's disclosure. Japan 502 also shows the depressed portion having a curved surface in figure 7. Japan 502's lugs have a polygonal shape in figures 1 and 8. As can be seen from a comparison of figures 1 and 8 of Japan 502, Japan 502 is not limited to a specific shape for the lugs, and one of ordinary skill in the art would have found it obvious to use lugs shaped as shown in figure 11A of the admitted prior art - such a modification resulting in a "generally spherical shape" as claimed.

The functional language in claim 9 fails to define tire structure different from that suggested by the applied prior art. It is noted that the benefit of prevention of sinking is obtained by using a curved concave bottom surface as shown in figures 8A-8C and that Japan 502's tire has this same curved concave surface. See figures 4 and 5 of Japan 502.

As to claim 2, see the "overlap" shown in figure 1 of Japan 502.

As to claims 3, 4, 7, 11 and 12, the EP crosses Japan 502's lugs and the depressed portions are symmetrical. See figures 1 and 7 of Japan 502.

As to claims 5 and 6, note notches 37 in Japan 502.

As to claim 8, Japan 502's outer tread surface is "generally planar" as shown in figure 7.

Allowable Subject Matter

9) **Claims 1 would be allowable if (1) rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112 set forth in this Office action and (2) amended to**

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include the subject matter shown in figures 5, 6, and 7 and described at paragraphs 33-37 (each of figures 5, 6 and 7 showing a substantially arc shaped contour wherein the substantially arc shaped contour of figure 5 extends to the side of the tire, the substantially arc shaped contour of figure 6 is at the side of the tire and the substantially arc shaped contour of figure 7 extends to the side of the tire.

The prior art of record including Japan 502 and the admitted prior art fails to suggest the above specified shape for the depressed portions in combination with the remaining limitations of claim 1.

Remarks

10) Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 12-16-05 have been fully considered but they are not persuasive.

Applicant argues that Japan 502's depressions are curved in only one direction. Applicant is incorrect. See figures 4 and 7 of Japan 502, which show the depressions curved in the circumferential and depth direction respectively.

Applicant argues that the admitted prior art's depressions are curved in only one direction. Applicant is incorrect. See figures 11A and 11B of the admitted prior art, which show the lugs being curved in the width and depth directions. By curving Japan 502's lugs (figure 1, 8) such that the corners are curved as shown in figure 11A, the depression is curved in all three directions and is thereby generally spherical as

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claimed. In other words, the claimed invention of claims 1 and 9 reads on using the lug shape shown in figure 11A of the admitted prior art for the lugs shown in figure 1 of Japan 502. One of ordinary skill in the art would readily appreciate that Japan 502 is not limited to a single lug shape since Japan 502 shows two different lug shapes.

Compare figures 1 and 8 of Japan 502. Furthermore, one of ordinary skill in the art would have found the lugs shape of the admitted prior art (figure 11A) to be suitable and desirable for Japan 502's lugs since the tread patterns of Japan 502 and the admitted prior art are substantially similar and are used for a common purpose (use on soil).

11) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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12) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki
March 5, 2006

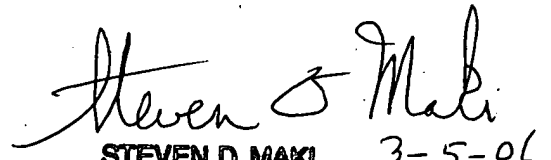

STEVEN D. MAKI 3-5-06
PRIMARY EXAMINER



FIG. 4

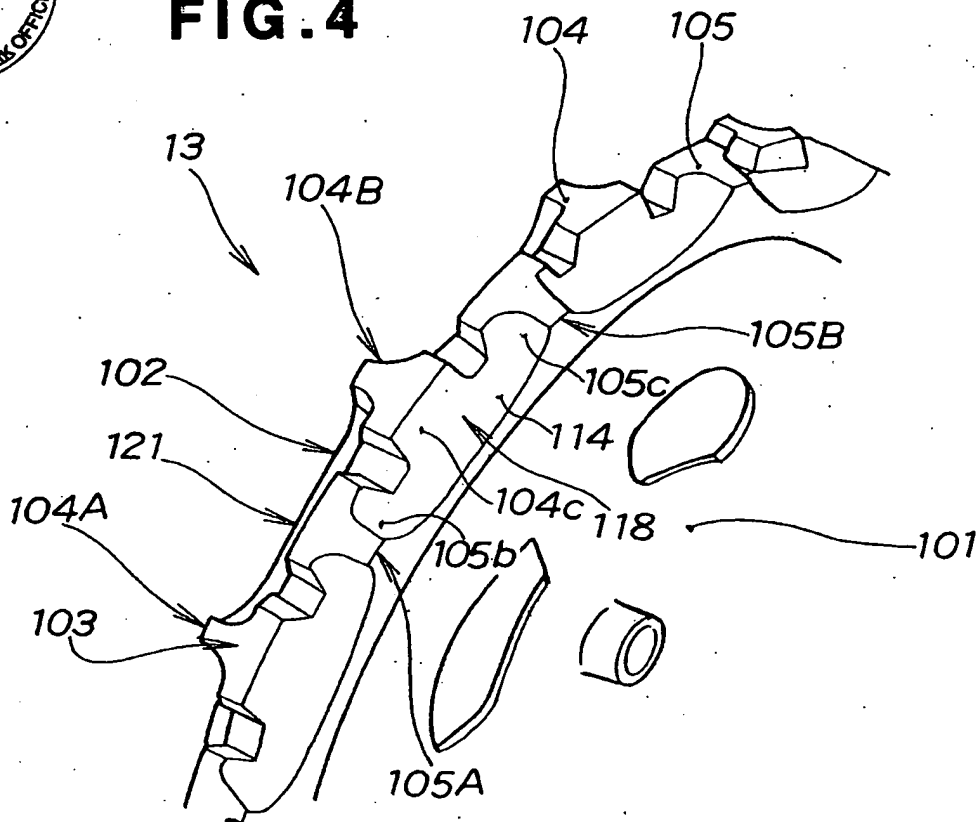
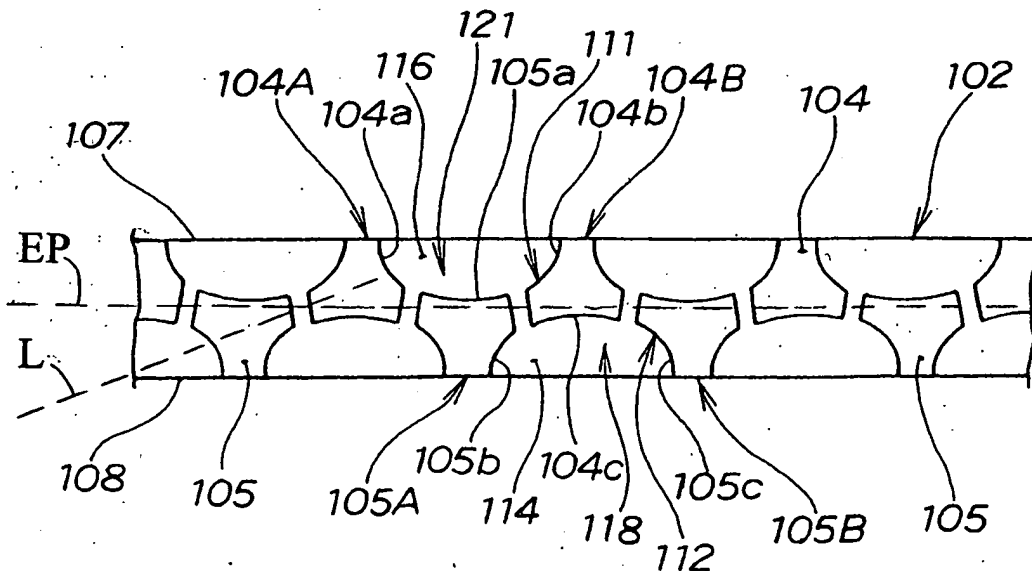


FIG. 5



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NOT APPROVED